

Ms. Laurie Ropel  
Teledyne Casting Service  
300 Philadelphia Street  
P.O. Box 488  
LaPorte, Indiana 46350

Re: 091-11608  
First Administrative Amendment to  
Source Modification No. 091-10594-00018

Dear Ms. Ropel:

Teledyne Casting Service was issued a Part 70 Significant Source Modification on July 22, 1999 for the addition of a Didion rotary lump crusher in the High Bay Mechanical Reclamation System and two (2) pneumatic sand transporters between the High and Center Bay Mechanical Reclamation Systems. A letter requesting that the mechanical reclaim baghouse (baghouse C04) be replaced by the blast operations baghouse (baghouse C03) to increase control efficiency was received on November 29, 1999. This increase in efficiency of the baghouse does not change the limits or production specified in Significant Source Modification 091-10594-00018. Pursuant to the provisions of 326 IAC 2-7-11 the permit is hereby administratively amended as follows:

A.2 Emission Units and Pollution Control Equipment Summary on page 3 of 18 is amended as follows:

- (a) One (1) Didion rotary lump crusher in the High Bay Mechanical Reclamation System, equipped with a baghouse, known as ~~C04~~ **C03**, exhausting through Stack ~~S04~~ **S03**, capacity: 68.75 tons of sand per hour.

D.1 Facility Description on page 12 of 18 has been amended as follows:

- (a) One (1) Didion rotary lump crusher in the High Bay Mechanical Reclamation System, equipped with a baghouse, known as ~~C04~~ **C03**, exhausting through Stack ~~S04~~ **S03**, capacity: 68.75 tons of sand per hour.

D.1.5 Testing Requirements on page 13 of 18 is amended as follows:

Within sixty (60) days after achieving maximum production rate, but not later than the date of the performance test required by Operation Condition 17 of CP 091-10136-00018, issued April 21, 1999, the Permittee shall perform PM and PM<sub>10</sub> testing for the baghouse Stack ~~S04~~ **S03** utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.6 Particulate Matter (PM) on page 13 of 18 is amended as follows:

- (a) The baghouse, ~~C04~~ **C03**, for PM control shall be in operation at all times when the lump crusher is in operation and exhausting to the outside atmosphere.

D.1.7 Visible Emissions Notations on page 13 of 18 is amended as follows:

- (a) Daily visible emission notations of the ~~S04~~ **S03** stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

D.1.8 Parametric Monitoring on page 14 of 18 is amended as follows: (Note: The Didion rotary lump crusher will still be able to demonstrate compliance with emission limits in 091-10594-00018 with the change in pressure drop as indicated below.)

The Permittee shall take readings of the total static pressure drop across the ~~C04~~ **C03** baghouse, at least once daily when the Mechanical Sand Reclamation System is in operation and vented to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~4-9~~ **3.0** and 9.0 inches of water. The Preventive Maintenance Plan for this baghouse shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.

D.1.11 Record Keeping Requirements on page 14 of 18 is amended as follows:

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of daily visible emission notations of the stack ~~S04~~ **S03** exhaust.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Rachel Meredith, at (800) 451-6027, press 0 and ask for Rachel Meredith or extension 3-5691, or dial (317) 233-5691.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

Attachment

RLM

cc: File - LaPorte County  
U.S. EPA, Region V  
LaPorte County Health Department  
Northwest Regional Office  
Air Compliance Section Inspector - Rick Massoels  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

# **PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT**

**Teledyne Casting Service  
300 Philadelphia Street  
LaPorte, Indiana 46350**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 091-10594-00018	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: July 22, 1999

  

First Administrative Amendment: 091-11608	Pages Affected: 3, 12, 13, 14
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## SECTION A

## SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a gray iron foundry.

Responsible Official: David Neil  
Source Address: 300 Philadelphia Street, LaPorte, Indiana 46350  
Mailing Address: P.O. Box 488, LaPorte, Indiana 46352-0488  
Phone Number: 219-362-1000  
SIC Code: 3321  
County Location: LaPorte  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) Didion rotary lump crusher in the High Bay Mechanical Reclamation System, equipped with a baghouse, known as C03, exhausting through Stack S03, capacity: 68.75 tons of sand per hour.
- (b) Two (2) pneumatic sand transporters between the High and Center Bay Mechanical Reclamation Systems, equipped with a bin vent filter, capacity: 15 tons of sand per hour, each.

### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) Didion rotary lump crusher in the High Bay Mechanical Reclamation System, equipped with a baghouse, known as C03, exhausting through Stack S03, capacity: 68.75 tons of sand averaged over 24 hours per hour.
- (b) Two (2) pneumatic sand transporters between the High and Center Bay Mechanical Reclamation Systems, equipped with a bin vent filter, capacity: 15 tons of sand per hour, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 2-2]

In order to avoid the applicability of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)),

- (a) The total PM emission rate after controls for the Didion lump crusher, transporters and the rotoconditioner covered in this permit and CP 091-10136 shall be less than 5.48 pounds per hour average over three (3) hours.
- (b) The PM emission rate limitation in (a) is less than twenty-five (25) tons per twelve (12) month period, rolled monthly

#### D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3 (Process operations), the allowable PM emission rate from:

- (a) The lump crusher shall not exceed 47.6 pounds per hour when operating at a process weight rate of 68.75 tons per hour.
- (b) The pounds per hour emission limitations for the lump crusher were calculated with the following formula:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (c) The two (2) sand transporters shall not exceed 25.2 pounds per hour PM each when operating at a process weight rate of 15.0 tons of metal (sand) per hour.
- (d) The pounds per hour emission limitations were calculated with the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### **D.1.3 PM<sub>10</sub> [326 IAC 2-2]**

In order to avoid the applicability of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)),

- (a) The total PM<sub>10</sub> emission rate after controls for the Didion lump crusher, transporters and the rotoconditioner covered in this permit and CP 091-10136 shall be less than 3.40 pounds per hour average over three (3) hours.
- (b) The PM<sub>10</sub> emission rate limitation in (a) is less than fifteen (15) tons per twelve (12) month period, rolled monthly.

#### **D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the lump crusher and the CO4 baghouse.

### **Compliance Determination Requirements**

#### **D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]**

Within sixty (60) days after achieving maximum production rate, but not later than the date of the performance test required by Operation Condition 17 of CP 091-10136-00018, issued April 21, 1999, the Permittee shall perform PM and PM<sub>10</sub> testing for the baghouse Stack S03 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM<sub>10</sub>, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

#### **D.1.6 Particulate Matter (PM)**

- (a) The baghouse, CO3, for PM control shall be in operation at all times when the lump crusher is in operation and exhausting to the outside atmosphere.
- (b) The bin vent filter, for PM control shall be in operation at all times when either of the two (2) pneumatic sand transporters are in operation and exhausting to the outside atmosphere.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### **D.1.7 Visible Emissions Notations**

- (a) Daily visible emission notations of the S03 stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.1.8 Parametric Monitoring

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The Permittee shall take readings of the total static pressure drop across the C03 baghouse, at least once daily when the Mechanical Sand Reclamation System is in operation and vented to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 9.0 inches of water. The Preventive Maintenance Plan for this baghouse shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

#### D.1.9 Baghouse Inspections

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An inspection shall be performed each calendar quarter of all bags controlling the lump crusher when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

#### D.1.10 Broken or Failed Bag Detection

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In the event that bag failure has been observed.

- (a) For multiple compartment baghouses, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.1.11 Record Keeping Requirements

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- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of daily visible emission notations of the stack S03 exhaust.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain the following:
  - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency or predetermined differential pressure high set point and differential pressure